Journal of Natural Products
Vol. 50, No. 6, pp. 1183-1189, Nov-Dec 1987

ANTHRAQUINONES AND TERPENOIDS FROM *CASSIA JAVANICA* LEAVES

KAKOLI CHAUDHURI* and H. MOHINDRA CHAWLA[1]

Chemistry of Forest Products Branch, Forest Research Institute & Colleges, Dehra Dun-248 006, India

In our earlier communication we have reported a new flavone rhamnoside named javanin (1) and terpenoids and phenolics (2-4) from green leaves of *Cassia javanica* L. (Leguminosae). We report here anthraquinones and additional terpenoids from the MeOH extract of the green leaves.

EXPERIMENTAL

PLANT MATERIAL AND EXTRACTION.—Green leaves of *C. javanica* were collected from the Budha Jyanti Park, New Delhi, India, in the months of July and August, 1981. Voucher specimens are deposited in the Delhi University Herbarium (No. DUH. KCH054). The powdered, air-dried leaves (500 g) were successively extracted with boiling petroleum ether (60-80°; 5×2.5 liters) and boiling MeOH (5×2.5 liters).

ISOLATION OF ANTHRAQUINONES AND TERPENOIDS.—The concentrated petroleum ether extract yielded a green-orange waxy solid (15 g) that was extracted with EtOAc (3×2.5 liters). The EtOAc residue (8.5 g), on column chromatography over Si gel using petroleum ether and C_6H_6, yielded eight compounds: nonacosane, triacontane, butyrospermone, β-sitosterol palmitate, β-sitosterol behenate, behenic acid, β-amyrin palmitate, and β-sitosterol arachidate.

The concentrated MeOH extract yielded a brown-green sticky residue (27.2 g), which was macerated with C_6H_6 (3×500 ml); the C_6H_6 residue was green brown and was named fraction A (16 g), while the C_6H_6-insoluble portion was named fraction B (6 g). Fraction A, on column chromatography over Si gel using C_6H_6 and EtOAc, afforded three compounds: emodin, rhein, and chrysophanic acid while fraction B on column chromatography over Si gel afforded kaempferol-3-*O*-β-D-glucosyl-6-*O*-α-L-rhamnopyranose. All compounds were identified by their standard spectral and hydrolytic data, as well as by direct comparison with authentic samples (mp, mmp; and co-ir) and literature data (5-7). Details are available on request from the senior author.

ACKNOWLEDGMENTS

One of us (K.C.) is thankful to the CSIR, New Delhi, India for the award of a Research Associateship.

LITERATURE CITED

1. K. Chaudhuri and H.M. Chawla, *Indian J. Chem.*, **23B**, 543 (1984).
2. K. Chakrabarty and H.M. Chawla, *Indian J. Pham. Sci.*, **45**, 251 (1983).
3. K. Chakrabarty and H.M. Chawla, *Indian J. Chem.*, **22B**, 1165 (1983).
4. K. Chaudhuri (nee Chakrabarty) and H.M. Chawla, *Indian J. Pham. Sci.*, **47**, 172 (1985).
5. I. Heilbron, G.L. Moffet, and F.S. Spring, *J. Chem. Soc.*, 1583 (1934).
6. D.H.R. Barton, *J. Chem. Soc.*, 1027 (1953).
7. P.N. Austin, T.R. Seshadri, and M.S. Sood, *Indian J. Chem.*, **7**, 43 (1969).

Received 7 May 1986

[1]Department of Chemistry, Indian Institute of Technology, New Delhi-110 017, India.